



4160-01-P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

21 CFR Part 870

[Docket No. FDA-2011-N-0522]

Effective Date of Requirement for Premarket Approval for an Implantable Pacemaker Pulse Generator

AGENCY: Food and Drug Administration, HHS.

ACTION: Final rule.

SUMMARY: The Food and Drug Administration (FDA) is issuing a final rule to require the filing of a premarket approval application (PMA) or a notice of completion of a product development protocol (PDP) for implantable pacemaker pulse generators. The Agency has summarized its findings regarding the degree of risk of illness or injury designed to be eliminated or reduced by requiring this device to meet the statute's approval requirements and the benefits to the public from the use of the devices. This action implements certain statutory requirements.

DATES: This rule is effective [INSERT DATE 90 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

FOR FURTHER INFORMATION CONTACT:

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#### SUPPLEMENTARY INFORMATION:

##### I. Background--Regulatory Authorities

The Federal Food, Drug, and Cosmetic Act (the FD&C Act), as amended by the Medical Device Amendments of 1976 (the 1976 amendments) (Public Law 94-295), the Safe Medical Devices Act of 1990 (SMDA) (Public Law 101-629), the Food and Drug Administration Modernization Act of 1997 (FDAMA) (Public Law 105-115), the Medical Device User Fee and Modernization Act of 2002 (Public Law 107-250), and the Food and Drug Administration Amendments Act of 2007 (Public Law 110-85), among other amendments, established a comprehensive system for the regulation of medical devices intended for human use. Section 513 of the FD&C Act (21 U.S.C. 360c) established three categories (classes) of devices, depending on the regulatory controls needed to provide reasonable assurance of their safety and effectiveness. The three categories of devices are class I (general controls), class II (special controls), and class III (premarket approval).

Under section 513 of the FD&C Act, devices that were in commercial distribution before the enactment of the 1976 amendments, May 28, 1976 (generally referred to as preamendments devices), are classified after FDA has: (1) Received a recommendation from a device classification panel (an FDA advisory committee); (2) published the panel's recommendation for comment, along with a proposed regulation classifying the device; and (3) published a final regulation classifying the device. FDA has classified most preamendments devices under these procedures.

Devices that were not in commercial distribution prior to May 28, 1976 (generally referred to as postamendments devices) are automatically classified by section 513(f) of the FD&C Act into class III without any FDA rulemaking process. Those devices remain in class III and require premarket approval unless, and until, the device is reclassified into class I or II or FDA issues an order finding the device to be substantially equivalent, in accordance with section 513(i) of the FD&C Act, to a predicate device that does not require premarket approval. The Agency determines whether new devices are substantially equivalent to predicate devices by means of premarket notification procedures in section 510(k) of the FD&C Act (21 U.S.C. 360(k)) and part 807 (21 CFR part 807).

A preamendments device that has been classified into class III may be marketed by means of premarket notification procedures (510(k) process) without submission of a PMA until FDA issues a final regulation under section 515(b) of the FD&C Act (21 U.S.C. 360e(b)) requiring premarket approval. Section 515(b)(1) of the FD&C Act establishes the requirement that a preamendments device that FDA has classified into class III is subject to premarket approval. A preamendments class III device may be commercially distributed without an approved PMA or a notice of completion of a PDP until 90 days after FDA issues a final rule requiring premarket approval for the device, or 30 months after final classification of the device under section 513 of the FD&C Act, whichever is later. Also, a preamendments device subject to the rulemaking procedure under section 515(b) is not required to have an approved investigational device exemption (IDE) (see part 812 (21 CFR part 812)) contemporaneous with its interstate distribution until the date identified by FDA in the final rule requiring the submission of a PMA for the device. At that time, an IDE is required only if a PMA has not been submitted or a PDP completed.

Section 515(b)(2)(A) of the FD&C Act provides that a proceeding to issue a final rule to require premarket approval shall be initiated by publication of a notice of proposed rulemaking containing: (1) The regulation; (2) proposed findings with respect to the degree of risk of illness or injury designed to be eliminated or reduced by requiring the device to have an approved PMA or a declared completed PDP and the benefit to the public from the use of the device; (3) an opportunity for the submission of comments on the proposed rule and the proposed findings; and (4) an opportunity to request a change in the classification of the device based on new information relevant to the classification of the device.

Section 515(b)(2)(B) of the FD&C Act provides that if FDA receives a request for a change in the classification of the device within 15 days of the publication of the notice, FDA shall, within 60 days of the publication of the notice, consult with the appropriate FDA advisory committee and publish a notice denying the request for change in reclassification or announcing its intent to initiate a proceeding to reclassify the device under section 513(e) of the FD&C Act. Section 515(b)(3) of the FD&C Act provides that FDA shall, after the close of the comment period on the proposed rule and consideration of any comments received, issue a final rule to require premarket approval or publish a document terminating the proceeding together with the reasons for such termination. If FDA terminates the proceeding, FDA is required to initiate reclassification of the device under section 513(e) of the FD&C Act, unless the reason for termination is that the device is a banned device under section 516 of the FD&C Act (21 U.S.C. 360f).

When a rule to require premarket approval for a preamendments device is finalized, section 501(f)(2)(B) of the FD&C Act (21 U.S.C. 351(f)(2)(B)) requires that a PMA or notice of completion of a PDP for any such device be filed within 90 days of the date of issuance of the

final rule or 30 months after the final classification of the device under section 513 of the FD&C Act, whichever is later. If a PMA or notice of completion of a PDP is not filed by the latter of the two dates, commercial distribution of the device must cease because the device would be deemed adulterated under section 501(f).

The device may, however, be distributed for investigational use if the manufacturer, importer, or other sponsor of the device complies with the IDE regulations. If a PMA or notice of completion of a PDP is not filed by the latter of the two dates, and no IDE is in effect, the device is deemed to be adulterated within the meaning of section 501(f)(1)(A) of the FD&C Act, and subject to seizure and condemnation under section 304 of the FD&C Act (21 U.S.C. 334), if its distribution continues. Shipment of devices in interstate commerce will be subject to injunction under section 302 of the FD&C Act (21 U.S.C. 332), and the individuals responsible for such shipment will be subject to prosecution under section 303 of the FD&C Act (21 U.S.C. 333). In the past, FDA has requested that manufacturers take action to prevent the further use of devices for which no PMA has been filed and may determine that such a request is appropriate for the class III device that is the subject of this regulation.

The FD&C Act does not permit an extension of the 90-day period after issuance of a final rule within which an application or notice is required to be filed. The House Report on the 1976 amendments states that “\* \* \* [t]he thirty month ‘grace period’ afforded after classification of a device into class III \* \* \* is sufficient time for manufacturers and importers to develop the data and conduct the investigations necessary to support an application of premarket approval” (H. Rept. 94-853, 94th Cong., 2d sess. 42 (1976)).

The SMDA added section 515(i) to the FD&C Act requiring FDA to review the classification of preamendments class III devices for which no final rule requiring the

submission of PMAs has been issued, and to determine whether or not each device should be reclassified into class I or class II or remain in class III. For devices remaining in class III, the SMDA directed FDA to develop a schedule for issuing regulations to require premarket approval. The SMDA does not, however, prevent FDA from proceeding immediately to rulemaking under section 515(b) of the FD&C Act on specific devices, in the interest of public health, independent of the procedures of section 515(i). Proceeding directly to rulemaking under section 515(b) of the FD&C Act is consistent with Congress' objective in enacting section 515(i), i.e., that preamendments class III devices for which PMAs have not been previously required either be reclassified to class I or class II or be subject to the requirements of premarket approval.

In the Federal Register of May 6, 1994 (59 FR 23731) (the May 6, 1994, notice), FDA issued a notice of availability of a preamendments class III devices strategy document. The strategy document set forth FDA's plans for implementing the provisions of section 515(i) of the FD&C Act for preamendments class III devices for which FDA had not yet required premarket approval.

In the Federal Register of July 27, 2011 (76 FR 44872) (the July 27, 2011, proposed rule), FDA published a proposed rule to require the filing under section 515(b) of the FD&C Act of a PMA or notice of completion of a PDP for the implantable pacemaker pulse generator. In accordance with section 515(b)(2)(A) of the FD&C Act, FDA included in the preamble of the proposed rule the Agency's tentative findings with respect to the degree of risk of illness or injury designed to be eliminated or reduced by requiring the devices to meet the premarket approval requirements of the FD&C Act, and the benefits to the public from use of the device. The July 27, 2011, proposed rule also provided an opportunity for interested persons to submit comments on the proposed rule and the Agency's findings. Under section 515(b)(2)(B) of the

FD&C Act, FDA provided an opportunity for interested persons to request a change in the classification of the devices based on new information relevant to its classification. Any petition requesting a change in classification of the implantable pacemaker pulse generator was required to be submitted by August 11, 2011. The comment period for the implantable pacemaker pulse generator closed October 25, 2011.

FDA received one comment on the proposed rule for the implanted pacemaker pulse generator. The comment was a general statement supporting the requirements for filing of a PMA for this device. The comment did not recommend any changes to the proposed rule. FDA received no petitions requesting a change in the classification of the device.

## II. Findings With Respect to Risks and Benefits

As required by section 515(b) of the FD&C Act, FDA published its findings regarding: (1) The degree of risk of illness or injury designed to be eliminated or reduced by requiring that this device have an approved PMA or a declared completed PDP and (2) the benefits to the public from the use of the device. These findings were published in the July 27, 2011, proposed rule.

These findings are based on the reports and recommendations of the advisory committees (panels) for the classification of these devices along with information submitted in response to the 515(i) Order, (April 9, 2009 (74 FR 16214)), and any additional information that FDA has encountered. Additional information regarding the risks as well as classification associated with the implantable pacemaker pulse generator can be found in the following proposed and final rules published in the Federal Register on these dates: March 9, 1979 (44 FR 13373); February 5, 1980 (45 FR 7940); and May 11, 1987 (52 FR 17732 at 17736).

## III. The Final Rule

Under section 515(b)(3) of the FD&C Act, FDA is adopting its findings as published in the preamble to the proposed rule. FDA is issuing this final rule to require premarket approval of these generic types of devices for class III preamendments devices by revising part 870 (21 CFR part 870).

Under the final rule, a PMA or a notice of completion of a PDP is required to be filed on or before 90 days after the date of publication of the final rule in the Federal Register, for any of these class III preamendments devices that were in commercial distribution before May 28, 1976, or that has been found by FDA to be substantially equivalent to such a device on or before 90 days after the date of publication of the final rule in the Federal Register. An approved PMA or a declared completed PDP is required to be in effect for any such devices on or before 180 days after FDA files the application. Any other class III preamendments device subject to this rule that was not in commercial distribution before May 28, 1976, is required to have an approved PMA or a declared completed PDP in effect before it may be marketed.

If a PMA or a notice of completion of a PDP for any of the class III preamendments devices is not filed on or before the 90th day past the effective date of this regulation, that device will be deemed adulterated under section 501(f)(1)(A) of the FD&C Act, and commercial distribution of the device must cease immediately. The device may, however, be distributed for investigational use, if the requirements of the IDE regulations (part 812) are met.

#### IV. Environmental Impact

The Agency has determined under 21 CFR 25.30(h) that this action is of a type that does not individually or cumulatively have a significant effect on the human environment. Therefore, neither an environmental assessment nor an environmental impact statement is required.



## V. Analysis of Impacts

FDA has examined the impacts of the final rule under Executive Order 12866, Executive Order 13563, the Regulatory Flexibility Act (5 U.S.C. 601-612), and the Unfunded Mandates Reform Act of 1995 (Public Law 104-4). Executive Orders 12866 and 13563 direct Agencies to assess all costs and benefits of available regulatory alternatives and, when regulation is necessary, to select regulatory approaches that maximize net benefits (including potential economic, environmental, public health and safety, and other advantages; distributive impacts; and equity). The Agency believes that this final rule is not a significant regulatory action under Executive Order 12866.

The Regulatory Flexibility Act requires Agencies to analyze regulatory options that would minimize any significant impact of a rule on small entities. There have been no 510(k) submissions for implantable pacemaker pulse generators since 1999, and there is no record of pacemaker batteries ever being marketed. Accordingly, it has been determined that all of these devices are in a state of disuse, and FDA has concluded that there is little or no interest in marketing these devices in the future. Therefore, the Agency certifies that the final rule will not have a significant economic impact on a substantial number of small entities.

Section 202(a) of the Unfunded Mandates Reform Act of 1995 requires that Agencies prepare a written statement, which includes an assessment of anticipated costs and benefits, before proposing “any rule that includes any Federal mandate that may result in the expenditure by State, local and tribal governments, in the aggregate, or by the private sector, of \$100,000,000 or more (adjusted annually for inflation) in any one year.” The current threshold after adjustment for inflation is \$139 million, using the most current (2011) Implicit Price Deflator for the Gross

Domestic Product. FDA does not expect this final rule to result in any 1-year expenditure that would meet or exceed this amount.

FDA has concluded that this final rule will not have a significant impact. We base this determination on an analysis of our Registration and Listing, 510(k) and PMA database information.

There have been no 510(k) submissions for implantable pacemaker pulse generators since 1999, with the exception of one 510(k) submission cleared in 2001 that was erroneously coded as an implantable pacemaker pulse generator (product code DXY), but is actually for an external pacemaker. This record has been corrected. Current pacemakers have newer features and capabilities that have rendered them not substantially equivalent to the devices cleared under 510(k) prior to 1999, which are obsolete. Current pacemakers are marketed under a PMA; in some cases the product code DXY has been erroneously applied. In addition, there have been no valid 510(k) submissions for pacemaker batteries for implantable pacemakers, which also fall under the product code DSZ also under § 870.3610. Two 510(k) submissions have been received for DSZ devices since 1976, but they were miscoded, which has been corrected. The Agency has no record of pacemaker batteries ever being marketed.

This information is summarized in table 1 of this document as follows:

Table 1--Summary of Electronic Registration and Listing Information

Device Name	Product Code	Last Listed	Last Valid 510(k) Cleared	Replaced by Approved Technology?
Implantable Pacemaker Pulse Generator	DXY	2012	1999	Yes <sup>1</sup>
Pacemaker Battery	DSZ	No Record	No Record	No <sup>2</sup>

<sup>1</sup>Implantable pacemaker pulse generators have been submitted as PMAs since the early 1980s. The product code DXY has been erroneously applied to many of these PMA products.

<sup>2</sup>Pacemaker batteries are not separately marketed products. They are internal to implantable pacemakers.

Based on our review of electronic product registration and listing and other data, FDA concludes that there is currently little or no interest in marketing the affected devices and that the final rule would not have a significant economic impact.

## VI. Federalism

FDA has analyzed this final rule in accordance with the principles set forth in Executive Order 13132. FDA has determined that the rule does not contain policies that have substantial direct effects on the States, on the relationship between the National Government and the States, or on the distribution of power and responsibilities among the various levels of government. Accordingly, the Agency has concluded that the rule does not contain policies that have federalism implications as defined in the Executive order and, consequently, a federalism summary impact statement is not required.

## VII. Paperwork Reduction Act of 1995

This final rule refers to currently approved collections of information found in FDA regulations. These collections of information are subject to review by the Office of Management and Budget (OMB) under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501-3520). The collections of information in part 812 have been approved under OMB control number 0910-0078; the collections of information in part 807, subpart E, have been approved under OMB control number 0910-0120; the collections of information in 21 CFR part 814, subpart B, have been approved under OMB control number 0910-0231; and the collections of information under 21 CFR part 801 have been approved under OMB control number 0910-0485.

## List of Subjects in 21 CFR Part 870

Medical devices.

Therefore, under the Federal Food, Drug, and Cosmetic Act and under authority delegated to the Commissioner of Food and Drugs, 21 CFR part 870 is amended as follows:

### PART 870--CARDIOVASCULAR DEVICES

1. The authority citation for 21 CFR part 870 continues to read as follows:

Authority: 21 U.S.C. 351, 360, 360c, 360e, 360j, 371.

2. Section 870.3610 is amended by revising paragraphs (a) and (c) to read as follows:

§ 870.3610 Implantable pacemaker pulse generator.

(a) Identification. An implantable pacemaker pulse generator is a device that has a power supply and electronic circuits that produce a periodic electrical pulse to stimulate the heart. This device is used as a substitute for the heart's intrinsic pacing system to correct both intermittent and continuous cardiac rhythm disorders. This device may include triggered, inhibited, and asynchronous modes and is implanted in the human body.

\* \* \* \* \*

(c) Date PMA or notice of completion of PDP is required. A PMA or notice of completion of a PDP is required to be filed with the Food and Drug Administration on or before [INSERT DATE 90 DAYS AFTER DATE OF PUBLICATION OF THIS FINAL RULE IN THE FEDERAL REGISTER], for any implantable pacemaker pulse generator device that was in commercial distribution before May 28, 1976, or that has, on or before [INSERT DATE 90 DAYS AFTER DATE OF PUBLICATION OF THIS FINAL RULE IN THE FEDERAL REGISTER], been found to be substantially equivalent to any implantable pacemaker pulse generator device that was in commercial distribution before May 28, 1976. Any other

implantable pacemaker pulse generator device shall have an approved PMA or declared completed PDP in effect before being placed in commercial distribution.

Dated: June 18, 2012.

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Center for Devices and Radiological Health.

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